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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,273	12/12/2003	Jean Cotteret	LORE:007US	3600

7590 03/02/2006

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EXAMINER
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ELHILO, EISA B

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/735,273	COTTERET ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Eisa B. Elhilo	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,8,11,14,17-19,22-26,34-48 and 50-109 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,8,11,22-26,34-55,60-85 and 90-109 is/are rejected.
- 7) ☒ Claim(s) 14,17-19,56-59 and 86-89 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/6/2006 has been entered.

2 The cancellation of claims 2, 5, 7, 9-10, 12-13, 15-16, 20-21, 27-33 and 49 is acknowledged. Pending claims are 1, 3-4, 6, 8, 11, 14, 17-19, 22-26, 34-48 and 50-109.

### *Claim Rejections - 35 USC § 103*

3 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 6, 8, 11, 22-26, 34-55, 60-85 and 90-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent et al. (US 2002/0046431 A1) in view of Lim et al. (US 6,461,391 B1) and further in view of Casperson et al. (US 6,156,076).

Laurent et al. (US' 431 A1) teaches a hair dyeing composition comprising oxidation bases such as para-phenylenediamine compounds represented by a formula (1), in which R1 and R2 form together with the nitrogen to which they attached a 5- or 6-membered nitrogen-containing heterocyclic ring (see page. 10, formula (1) and page 11, paragraph, 0270) and wherein the composition further comprises organic diacid compounds such as tartaric acid as claimed in claims 1, 50 and 80 (see page 22, paragraph, 0476), additional cationic polymers as

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claimed in claims 36, 67 and 97 (see page 7, paragraph, 0192), thickeners and surfactants as claimed in claims 37-38, 68-69 and 98-99 (see page 21, paragraph, 0466), other oxidation bases such as para-aminophenol as claimed in claims 39, 70 and 100 (see page 12, formula (III)), wherein the oxidation bases are presented in the amount of 0.0005% to 12% which is within the claimed range as claimed in claims 40, 71 and 101 (see page 13, paragraph, 0312), couplers such as 1,3-dihydroxybenzene (meta-diphenol) in the amount of 0.005 to 5% as claimed in claims 41-43, 72-74 and 102-104 (see page 13, paragraph, 0314), direct dyes as claimed in claims 44, 75 and 105 (see page 13, paragraph, 0317), hydroxylated solvents such as ethanol as claimed in claims 45, 76 and 106 (see page 10, paragraph, 0254), oxidizing agents such as hydrogen peroxide as claimed in claims 46, 77 and 107 (see page 21, paragraph, 0469). Laurent et al. also teaches a similar process for dyeing hair comprising applying to the hair the dyeing composition as described above and wherein the process is similar to those as claimed in claims 47, 78 and 108 (see page 22, paragraph, 0477). Laurent et al. further, teaches multi-compartment devices for dyeing hair, which are similar to those, claimed in claims 48, 79 and 109 (see page 27, claim 66).

The claims differ from the reference by reciting cationic tertiary para-phenylenediamine compounds as oxidation bases and specific species of diacid components.

Lim et al. (US' 391 B1) in analogous art of hair dyeing formulation, teaches a composition comprising oxidation base of cationic tertiary para-phenylenediamine having a formula (1), which is similar to the claimed formula (1), when in the reference formula (1), R, R1 and R2 are alkyl radicals, R4 is hydrogen atom or an alkyl radical and R5 is a hydrogen atom as claimed in claims 1, 3-4, 6, 8, 11, 50-55 and 81-85 (see col. 2, lines 44-50) and when in the claimed formula (1), R2 represents the onion radical Z of the claimed formula (II), R3 is a

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hydrogen atom, n is 1 or 0 and R1 is an alkyl radical. The cationic tertiary para-phenylenediamine is represented in the amount of 0.01 to about 5.0%, which is within the claimed range as claimed in claims 34-35, 65-66 and 95-96 (see col. 3, lines 43-46). Lim et al. further, teaches the compound [1-(4-aminophenyl)pyrrolidin-3-yl]trimethylammonium iodide of a formula I, which is structurally similar to the claimed compounds as claimed in claims 22-26, 60-64 and 90-94 (see col. 13, Table 2, Example 16, compound 1).

Casperson et al. (US' 076) in other analogous art of hair dyeing formulation, teaches a composition comprising diacid compounds such as dilinoleic acid as claimed in claims 1, 50 and 80 (see col. 7, lines 17-18)

Therefore, in view of the teachings of the secondary references, one having ordinary skill in the art at the time the invention was made would be motivated to formulate such a dyeing composition by substituting the heterocyclic para-phenylenediamine oxidation base of Laurent et al. by the cationic tertiary para-phenylenediamines as taught by Lim et al., and to incorporate dilinoleic acid in the composition of Laurent et al. (US' 431 A1) to arrive at the claimed invention. Such a modification would be obvious because Laurent et al. as a primary reference discloses the genus of para-phenylenediamine compounds as oxidation bases and suggests the use of diacids such as tartaric acid as buffering agent in the hair dyeing composition (see page 22, paragraph, 0477). Lim et al. as a secondary reference clearly teaches that the quaternized pyrrolidine compounds are suitable primary intermediates for hair coloring compositions for providing good oxidative coloration of hair such as light fastness, fastness to shampooing, fastness to permanent wave treatment and suitable for providing a wide variety of different color shades with various primary intermediate and coupler compounds (see col. 2, lines 13-20).

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Casperson et al. (US' 076) clearly teaches the claimed species dilinoleic acid as a buffering agent (see col. 7, lines 16-18), and, thus, a person of the ordinary skill in the art would be motivated to substitute para-phenylenediamine oxidation bases of Laurent et al. by the cationic tertiary para-phenylenediamines of Lim et al., and to incorporate the dilinoleic acid in the hair dyeing composition of Laurent et al., with the reasonable expectation of success for providing good oxidation coloring of hair and to adjust the pH of the composition and would expect such a composition to have similar properties to those claimed, absent unexpected results.

***Allowable Subject Matter***

4        Claims 14, 17-19, 56-59, and 86-89 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record do not teach or disclose cationic para-phenylenediamine compounds of the claimed formula (II), in which x is equal 1. the prior art of record also do not teach or disclose para-phenylenediamine compounds of the claimed formulae (III) and (IV).


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B. Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eisa Elhilo  
Patent Examiner  
Art Unit 1751

February 28, 2006